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 TI Method and apparatus for manufacturing building panels from calcium silicate
 IN Stellmach, Winfried
 PA CSP-Chemie Entwicklungsgesellschaft m.b.H., Fed. Rep. Ger.
 SO Ger. Offen., 5 pp.
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 LA German
 IC ICM C04B028-20
 ICS B28B005-02; B28B003-00
 CC 58-4 (Cement, Concrete, and Related Building Materials)
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PI	DE 3641823	A1	19880616	DE 1986-3641823	19861206
	EP 270797	A1	19880615	EP 1987-115641	19871024
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	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	AT 84293	T	19930115	AT 1987-115641	19871024
	ES 2036557	T3	19930601	ES 1987-115641	19871024
	DK 8706389	A	19880607	DK 1987-6389	19871204
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CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3641823	ICM	C04B028-20
	ICS	B28B005-02; B28B003-00
EP 270797	IPCI	C04B0028-20 [ICM,4]; C04B0028-00 [ICM,4,C*]; B28B0005-02 [ICS,4]; B28B0005-00 [ICS,4,C*]; B28B0003-00 [ICS,4]
	IPCR	C04B0040-02 [I,C*]; C04B0040-02 [I,A]
	ECLA	C04B040/02
	IPCI	C04B0040-02 [ICM,4]
AT 84293	IPCR	C04B0040-02 [I,C*]; C04B0040-02 [I,A]
	ECLA	C04B040/02
ES 2036557	IPCI	C04B0040-02 [ICM,5]
	IPCR	C04B0040-02 [I,C*]; C04B0040-02 [I,A]
DK 8706389	IPCI	C04B0040-02 [ICM,4]
	IPCR	C04B0040-02 [I,C*]; C04B0040-02 [I,A]
	ECLA	C04B040/02
	IPCI	C04B0028-18 [ICM,4]; C04B0028-00 [ICM,4,C*]
	IPCR	C04B0040-02 [I,C*]; C04B0040-02 [I,A]
	ECLA	C04B040/02

AB Ca silicate building panels are manufactured by conversion of SiO₂ or a substance containing SiO₂ with CaO or a substance containing CaO in the presence of water, dewatering the Ca silicate slurry, autoclave-hardening, and drying. An aqueous solution of the reactants for Ca silicate hydrate formation and gelling is used, and allowed to stand undisturbed until the end of gel formation, i.e., stabilization, then pressed to the desired thickness, rolled, dewatered, steam-hardened, and dried. In the corresponding apparatus, the components are mixed on a water-permeable conveyor belt with a length before the subsequent filter press designed to provide the necessary dwell time for gel formation at a given feed rate. A typical starting mixture of finely ground quartz

meal 30, amorphous silicic acid 12 (as SiO₂), white lime 38, finely ground Ca silicate 13, cellulose fibers 4, and alkali-resistant glass fibers 3 weight% gave plates with compressive strength 3.9 and bending strength 1.3 N/mm², shrinkage at 750° 1.0 and at 1000° 1.2%, and heat conductivity 0.102 W/m-K.

- ST calcium silicate plate manuf; gelling calcium silicate hydrate
- IT Building materials
 - (panels, calcium silicate, manufacture of, calcium silicate hydrate formation and gelling for)
- IT 1344-96-3P, Calcium silicate hydrate
 - RL: PREP (Preparation)
 - (formation and gelling of, in calcium silicate panel manufacture)
- IT 1344-95-2P, Calcium silicate